

BEHAVIORAL HEALTH ISSUES AMONG AFGHANISTAN AND IRAQ U.S. WAR VETERANS

Since 2001, more than 2.2 million U.S. veterans have served in Afghanistan (Operation Enduring Freedom, or OEF) and Iraq (Operation Iraqi Freedom, or OIF).¹ Although more than two-fifths of these veterans receive healthcare and social services through the U.S. Department of Veterans Affairs (VA),² the remainder may seek services elsewhere—from community clinics, primary care providers, and other community centers. This *In Brief* introduces some of the problems facing OEF and OIF veterans and can help healthcare and social service professionals understand these veterans' needs.

Returning Veterans and Possible Behavioral Health Issues

Although the majority of veterans who return from Iraq and Afghanistan do not have a behavioral health condition and have not experienced a traumatic brain injury,³ all veterans experience a period of readjustment as they reintegrate into life with family, friends, and community. The veterans' juggling of military and family responsibilities, reintegration into civilian life in the United States after living in unfamiliar settings, and processing exposure to combat may contribute to problems for veterans themselves, as well as their spouses and family members.^{4,5} Behaviors needed to survive in a war zone, such as maintaining a constant state of alertness, may initially translate into troublesome behaviors in civilian life, such as feeling edgy or jumpy and being easily startled. Healthcare and social service providers and

clergy—from the community, military, or VA—may be the first contacts sought for help by veterans and their families, making it important for these providers to know about problems faced by veterans.

Those returning from a combat zone may experience a variety of common stress reactions, including sleeplessness, nightmares, and feelings of sadness, rejection, abandonment, or hopelessness. Veterans may also struggle to concentrate; engage in aggressive behavior, such as aggressive driving; and use alcohol, tobacco, and drugs excessively. However, the intensity and duration of these and other worrisome behaviors can indicate a more serious problem and the need for professional treatment.⁶ The VA offers screening, diagnostic assessment, and treatment to help veterans overcome discrimination or barriers that prevent them from seeking treatment.

Substance Abuse Among OEF and OIF Veterans

Few data have been reported on illicit drug use among OEF and OIF veterans, but one study of VA healthcare users reports that more than 11 percent of OEF and OIF veterans have been diagnosed with a substance use disorder (SUD)—an alcohol use disorder, a drug use disorder, or both.⁷ In addition, the data available for alcohol use show that some veterans use alcohol to self-medicate.⁵

VA data show that almost 22 percent of OEF and OIF veterans with post-traumatic stress disorder (PTSD) also have an SUD.⁸

Alcohol Consumption Guidelines

According to the National Institute on Alcohol Abuse and Alcoholism (NIAAA), at-risk alcohol consumption is having 5 or more drinks in 1 day for men and 4 or more drinks in 1 day for women—or more than 14 drinks per week for men and 7 drinks per week for women—1 or more times in the past year. Individuals are considered at risk for alcohol abuse or dependence if they need to drink a lot more to achieve the same desired effect as when they drank previously, have problems with work or family caused by drinking, or have been unable to cut down or quit.⁹

In addition, a recent national study of OEF and OIF veterans receiving VA health care was the first to show that those diagnosed with mental disorders, particularly PTSD, were notably more likely to receive prescription opioid medication for conditions related to pain than those with no mental health diagnoses. They were more likely to have co-occurring SUDs, to receive higher-dose opioid regimens and early refills, and to take the opioids for longer periods of time. These veterans were also at higher risk for adverse clinical outcomes.¹⁰

Studies show that alcohol misuse and abuse, hazardous drinking, and binge drinking are common among OEF and OIF veterans.^{11,12,13,14} Veterans sometimes drink alcohol as a way to numb the difficult feelings and erase the memories related to their war experiences.^{4,5} For example, increased combat exposure involving violence or human trauma among OIF veterans was linked to more frequent and greater quantities of alcohol use than was less exposure to such combat.¹⁵

Binge Drinking

Lack of a uniform definition of heavy episodic or binge drinking has caused difficulties in discussing this phenomenon. The NIAAA National Advisory Council approved the following definition: “A ‘binge’ is a pattern of drinking alcohol that brings blood alcohol concentration to 0.08 gram percent or above. For a typical adult, this pattern corresponds to consuming 5 or more drinks (male) or 4 or more drinks (female) in about 2 hours.”¹⁶

Mental Disorders Among OEF and OIF Veterans

Studies show that between 36.9 and 50.2 percent of OEF and OIF veterans in the VA healthcare system have received a mental disorder diagnosis, such as PTSD or depression.^{8,17}

VA data show that among OEF and OIF veterans using VA services, 27 percent (more than 167,500) have been diagnosed with PTSD.^{8,18} Other studies reveal that rates of PTSD among OEF and OIF veterans who were wounded or hospitalized because of combat were higher than rates among those who were not.^{19,20,21} In addition to manifesting the traditional symptoms of PTSD listed in the *Diagnostic and Statistical Manual of Mental Disorders*, Fourth Edition, Text Revision (DSM-IV-TR), OEF and OIF veterans who

have experienced trauma may increase their drinking or drug use, display risk-taking behaviors, and experience somatic symptoms, such as headaches and sweating, when thinking about combat experiences.^{4,5,14,15}

Studies have shown that symptoms may worsen over the first 12 months after a veteran returns home—particularly among Army Reserve and National Guard troops, likely due to variables related to readjustment to civilian life and employment or more restricted access to military health care.^{12,14} The reasons for this decline are unknown, but the initial relief of returning home may mask PTSD, or it may be that signs and symptoms do not appear as problems until individuals begin to engage in routine work or social functioning.²² When considering PTSD, it should be noted that it is often associated with co-occurring disorders that complicate assessment and treatment. These disorders include depression, SUDs, and traumatic brain injury.

In relation to depression, 2004–2007 data from the National Survey on Drug Use and Health show that an estimated 9.3 percent of U.S. veterans between ages 21 and 39 (312,000 people) experienced at least one major depressive episode (MDE) in the past year.²³ More than three-fourths of respondents reported either severe or very severe impairment in home, work, or interpersonal relationships.

Post-Traumatic Stress Disorder

PTSD may develop after an individual has been exposed to an event that involved the deaths of others, or an event that threatened death or serious injury to oneself or others, and the person’s response to the event involved fear, helplessness, or horror. Traumatic experiences that lead to PTSD among OEF and OIF veterans involve exposure to combat—including knowing someone who was injured or killed, killing an enemy combatant, or being shot at.²⁴ Signs and symptoms of PTSD include re-experiencing the traumatic event by way of flashbacks, nightmares, and intrusive thoughts about the event; efforts to avoid thoughts, feelings, or conversations associated with the trauma; efforts to avoid activities, places, or people that arouse recollections of the trauma; and diminished interest or participation in significant activities. Other indicators of PTSD include sleep difficulties, feelings of detachment from others, angry outbursts, and startling easily. The DSM-IV-TR provides a fuller description of PTSD.²⁵

The number of women involved in OEF and OIF and the scope of their duties are unmatched historically, and the rates at which they experience certain behavioral health issues vary from those for male veterans.²⁶ For example, female veterans are more than twice as likely as male veterans to have experienced a past-year MDE—16.6 percent versus 8.0 percent.²³ VA data also show that female veterans are much more likely than male veterans to screen positive for military sexual trauma—1 in 5 versus 1 in 100⁸—and such trauma is associated with both substance use and mental disorders, including PTSD, depression, and other anxiety disorders.²⁶

Suicide

In fiscal year 2009, 94 men and 4 women who were veterans of OEF and OIF took their own lives.²⁷ Another report showed that between 2002 and 2005, 144 out of 490,346 OEF and OIF veterans took their own lives, for an overall rate of 21.9 per 100,000;²⁸ this number does not take into account active-duty service members who took their own lives. The suicide rate among men who deployed and left the military between 2002 and 2005 is slightly higher than among men in the general population, with varying statistical significance between age groups; rates are particularly high in veterans ages 30 to 64. In addition, male veterans take their own lives at a higher rate than do female veterans, according to a VA summary of data from 2001 through 2005, but female veterans have a suicide rate that is nearly twice the rate of women in the general population.²⁸ These high suicide rates, coupled with the fact that more than 6,000 military veterans take their own lives each year, resulted in VA increasing its efforts to prevent suicide among veterans.²⁷

Reactions to war experiences can lead individuals to think about killing themselves.⁵ Common suicide warning signs include threatening to, or talking about wanting to, hurt or kill oneself, feeling hopeless, feeling uncontrolled anger or rage, and feeling trapped. A list of warning signs is available at the National Suicide Prevention Lifeline Web site (<http://www.suicidepreventionlifeline.org/GetHelp>).

In the general population, suicide completion risk factors include being male, having access to—and knowledge of—firearms, and having co-occurring medical conditions and behavioral health problems. This profile describes many OEF and OIF veterans, making suicide risk management particularly challenging for this group.²⁹

Suicide Prevention Resources

The National Suicide Prevention Lifeline Web site (<http://www.suicidepreventionlifeline.org>) has a special section for veterans with information about the Veterans Crisis Line (a partnership between VA, Substance Abuse and Mental Health Services Administration [SAMHSA], and the National Suicide Prevention Lifeline); a link to VA's Confidential Veterans Chat; and an anonymous Self-Check Quiz for veterans to see how they may benefit from services (<http://www.veteranscrisisline.net>).

Veterans Chat is a confidential live chat service available for veterans and their family members or friends who wish to chat online, one-on-one, with a VA mental health clinician. Veterans can participate in a live chat by visiting the link above and first clicking on “Confidential Veterans Chat,” checking the “I agree to the Terms of Service” box, and then clicking on “Click to Start Your Confidential Chat Now.” The Self-Check Quiz is a confidential, safe, and easy way for veterans to learn whether stress and depression are affecting them. Veterans can click on the “Take a Self-Check Quiz” button to take the quiz.

Veterans, service members, and their family members who are in emotional distress are urged to call the Veterans Crisis Line at 1-800-273-TALK (8255) and press “1” to be connected directly to a qualified, caring VA professional. All calls are confidential. To chat online and to receive confidential support 24 hours a day, 7 days a week, veterans can visit the Web site (<http://www.veteranscrisisline.net>).

Additional information about suicide prevention can be found at SAMHSA's Suicide Prevention Web site (<http://mentalhealth.samhsa.gov/suicideprevention/fivews.asp>).

Specific risk factors for veterans include frequent deployments, experiencing traumatic events while deployed, and experiencing a service-related injury.³⁰ Behavioral health issues, such as depression, PTSD, SUDs, and traumatic brain injury, also increase the likelihood of attempted suicide.⁸ One study showed that veterans with PTSD were more than four times as likely to report thoughts of suicide—a strong predictor of a suicide attempt—than were those without PTSD.³¹ A recent study also showed that veterans who are unmarried or who report lower satisfaction with their social networks are at higher risk for suicide.³²

Other behavioral health issues

A study of OIF veterans found that combative behaviors—such as angry verbal outbursts, destruction of property, threatening others with violence, and engaging in dangerous behaviors (e.g., driving under the influence of alcohol)—were associated with violent combat exposure.¹⁵ OEF and OIF veterans also experience high levels of conflict in family and social relationships, such as frequent arguments and poor communication.^{4,12}

What Primary Care and Behavioral Health Providers Can Do To Help

Ask and assess. Healthcare providers can screen OEF and OIF veterans for substance abuse, PTSD, depression, risk of suicide, other behavioral health issues, and the co-occurrence of these problems. Several short online screening tools are useful for quickly assessing behavioral health problems among veterans, as is a helpline for providers working with veterans with post-deployment health issues.^{33,34}

Intervene. Healthcare professionals can provide brief interventions, including giving feedback about screening results, describing risks associated with a behavioral health disorder, and advising about ways to begin addressing substance use or mental disorders.

The SAMHSA publication, *Quick Guide for Clinicians Based on Treatment Improvement Protocol (TIP) 34: Brief*

Interventions and Brief Therapies for Substance Abuse, summarizes guidance on brief therapies for individuals with SUDs (http://kap.samhsa.gov/products/tools/cl-guides/pdfs/QGC_34.pdf).

The screening, brief intervention, and referral to treatment (SBIRT) approach provides effective strategies for interventions before the need for extensive or specialized substance abuse treatment emerges. SBIRT uses brief treatment in a community setting. The National Institute on Drug Abuse's Physicians' Outreach Initiative (NIDAMED) provides resources for medical and healthcare professionals about drug use and SBIRT (<http://www.drugabuse.gov/nidamed>). NIAAA's *Helping Patients Who Drink Too Much: A Clinician's Guide, Updated 2005 Edition* provides helpful information about SBIRT and alcohol use (<http://pubs.niaaa.nih.gov/publications/Practitioner/CliniciansGuide2005/guide.pdf>).

TIP 50, *Addressing Suicidal Thoughts and Behaviors in Substance Abuse Treatment*, provides information for treatment providers and administrators about working with clients who have suicidal thoughts and behaviors. Included in the TIP are basic suggestions for addressing suicidal thoughts and behaviors, background information about suicide and SUDs, representative vignettes involving clients with suicidal thoughts and behaviors, and an implementation guide for treatment program administrators. A literature review on the topic can be found on SAMHSA's Web site (http://www.kap.samhsa.gov/products/manuals/tips/pdf/TIP50_LitRev.pdf).

Online Screening Tools for Assessing Behavioral Health Problems Among Veterans

For alcohol and drug abuse:

CAGE and CAGE-AID Questionnaires
<http://www.partnersagainstpain.com/printouts/A7012DA4.pdf>

NIDA-Modified Alcohol, Smoking, and Substance Involvement Screening Test
<http://www.drugabuse.gov/nidamed/nmassist-screening-tobacco-alcohol-other-drug-use>

For PTSD:

Primary Care PTSD Screen
<http://www.ptsd.va.gov/professional/pages/assessments/pc-ptsd.asp>

For depression:

The Patient Health Questionnaire-2
http://www.cqaimh.org/pdf/tool_phq2.pdf

For suicide:

Suicide Assessment Five-Step Evaluation and Triage: Pocket Card for Clinicians

<http://store.samhsa.gov/product/Suicide-Assessment-Five-Step-Evaluation-and-Triage-SAFE-T-/SMA09-4432>

Assessing Suicide Risk: Initial Tips for Counselors (wallet card)
<http://store.samhsa.gov/product/Assessing-Suicide-Risk-Initial-Tips-for-Counselors/SVP06-0153>

For assistance working with veterans:

DoD/VA Clinical Practice Guideline for Post-Deployment Health Evaluation and Management and other guidelines
<http://www.pdhealth.mil/guidelines/default.asp>

Deployment Health Clinical Center Helpline for Clinicians/Providers 1-866-559-1627

Refer. If the screening result indicates that the veteran is in need of specialized care for behavioral health issues, the provider can refer the veteran for an indepth assessment, diagnosis, and appropriate treatment. Many evidence-based treatments (EBTs) for substance use and mental disorders are available and include psychotherapies, behavioral and pharmacological therapies, and combinations of these. EBTs shown to be effective for PTSD include exposure therapy (particularly, prolonged exposure and exposure therapy using virtual reality), which involves repeated exposure to traumatic thoughts, emotions, or memories in a safe environment to reduce the power they have to cause distress; cognitive processing therapy; eye movement desensitization and reprocessing; and cognitive-behavioral therapy.³⁵

Healthcare providers can refer veterans to local VA medical centers, behavioral health counselors, and local veterans' organizations and support groups. Some Alcoholics Anonymous and Narcotics Anonymous groups are created specifically for veterans.

What Social Service Providers Can Do To Help

Know the facts. Understand the patterns and prevalence of behavioral health issues among returning veterans. Adjusting from war to civilian life affects veterans and their families.

Observe. Be attuned to the signs and symptoms of substance use and mental disorders among veterans. Veterans may not discuss these problems without being asked for fear that disclosure will affect their careers, embarrass them, or be interpreted as a sign of weakness.^{24,36}

Educate. Teach veterans about wellness and coping skills, such as how to return to regular patterns of sleep and exercise, use relaxation techniques, and reconnect with social supports.^{4,5} Social service providers also can educate other organizations in the community about the warning signs of PTSD, suicide contemplation, and other issues that veterans may be facing. These organizations can then refer veterans who need help.

Refer. Refer veterans and their families to appropriate resources and behavioral health service providers as necessary (see Locating Substance Abuse Treatment and Mental Health Services Providers).

Locating Substance Abuse Treatment and Mental Health Services Providers

SAMHSA provides an online treatment locator for mental health services across the Nation (<http://store.samhsa.gov/mhlocator>); this Web site also provides a link to VA's facility locator. A similar treatment center locator for SUDs is available from SAMHSA (<http://www.findtreatment.samhsa.gov>). In addition, SAMHSA's Treatment Referral Line is available by calling 1-800-662-HELP (4357).

Social service professionals who provide referrals contribute to recovery and better health.³⁶ Peer counseling options are also available through VA medical centers, the Wounded Warrior Project, and many state-based networks and nonprofit organizations.

Resources

SAMHSA resources

SAMHSA has many valuable resources that can assist providers working with veterans. These include upcoming pharmacologic guidelines for treating people with PTSD and co-occurring opioid use disorders, and guidelines for using pharmacological agents to treat those with co-occurring mental and substance use disorders. For these and other publications, visit the SAMHSA online store (<http://www.store.samhsa.gov/home>).

Also see:

<http://www.store.samhsa.gov/pages/searchResult/veterans>
<http://www.samhsa.gov/militaryfamilies>

For veterans and their families

For behavioral health issues, visit the U.S. Department of Veterans Affairs' Web site about mental health (<http://www.mentalhealth.va.gov/MENTALHEALTH/index.asp>).

For information on a number of topics, including education, relocations, parenting, and stress, Military OneSource is available for active-duty, Guard, and Reserve members and their families. The service, provided by the U.S. Department of Defense, is completely private and confidential, with few exceptions. For immediate help 24 hours a day, 7 days a week, either call 1-800-342-9647 or visit the Web site (<http://www.militaryonesource.com>).

For wellness resources for the military community, including assessments and topic-specific information, questions about psychological health or traumatic brain

injury, or immediate help 24 hours a day, 7 days a week, call 1-800-342-9647, or visit the afterdeployment.org Web site (<http://www.afterdeployment.org>).

Providing Services to Family Members of OEF and OIF Veterans

Veterans' spouses and other family members are often more willing than veterans to seek care, making families important links to veterans' recovery and well-being.¹² Family members are an important part of the services team. Family members' referrals to resources and educational materials can be the first step to a veteran's healthful adjustment to civilian life and recovery.

Additional Web sites to visit

U.S. Department of Defense/Department of Veterans Affairs Suicide Outreach: Resources for Suicide Prevention
<http://www.suicideoutreach.org>

U.S. Department of Veterans Affairs: Returning Service Members (OEF/OIF)
<http://www.oefoif.va.gov/index.asp>

Mental Health America
<http://www.nmha.org>

Military Pathways
<http://www.militarymentalhealth.org>

National Alliance on Mental Illness
<http://www.nami.org>

National Resource Directory
<https://www.nationalresourcedirectory.gov>

For healthcare and social service providers

Anger Management for Substance Abuse and Mental Health Clients Series

<http://store.samhsa.gov/product/SMA08-4213> (*A Cognitive Behavioral Therapy Manual*)

<http://store.samhsa.gov/product/SMA08-4210> (*Participant Workbook*)

Identifying and Helping Patients With Co-Occurring Substance Use and Mental Disorders: A Guide for Primary Care Providers, *Substance Abuse in Brief Fact Sheet*, Vol. 4, Issue 2, 2006

<http://store.samhsa.gov/product/MS994>

SAMHSA's Recovery Month Toolkit 2006 Military and Veterans, <http://www.recoverymonth.gov/Resources-Catalog/2006/Targeted-Outreach/Recovery-Month-Toolkit-2006-Military.aspx>

TIP 42: *Substance Abuse Treatment for Persons With Co-Occurring Disorders*
http://www.ncbi.nlm.nih.gov/bookshelf/br.fcgi?book=hssa_mhsatip&part=A74073

TIP 49: *Incorporating Alcohol Pharmacotherapies Into Medical Practice*
<http://www.ncbi.nlm.nih.gov/books/NBK64041>

TIP 50: *Addressing Suicidal Thoughts and Behaviors in Substance Abuse Treatment*
<http://www.ncbi.nlm.nih.gov/books/NBK14731>

NIDA: Resources for Medical and Health Professionals
<http://www.drugabuse.gov/medical-health-professionals>

U.S. Department of Veterans Affairs, National Center for PTSD
<http://www.ptsd.va.gov/index.asp>

afterdeployment.org
<http://www.afterdeployment.org>

Deployment Health Clinical Center
<http://www.pdhealth.mil/clinicians/default.asp>

Iraq and Afghanistan Veterans of America
<http://iava.org/content/invisible-injuries>

Issues Facing Returning Veterans, *Resource Links*, Volume 6, Issue 1, 2007

<http://www.attcnetwork.org/learn/topics/veterans/docs/VetsNwsltr2007.pdf>

Military Cultural Competence Essential Learning Course
<http://www.essentiallearning.net/student/content/sections/Lectora/MilitaryCultureCompetence/index.html>

Real Warriors, Real Battles, Real Strength
<http://www.realwarriors.net>

References

- Sayer, N. A. (2011). *Response to commentary: The challenges of co-occurrence of post-deployment health problems*. Washington, DC: U.S. Department of Veterans Affairs, Health Services Research and Development Service. Retrieved April 26, 2012, from <http://www.hsrd.research.va.gov/publications/forum/may11/may11-2.cfm>
- Veterans Health Administration, Office of Public Health and Environmental Hazards. (2009). *Analysis of VA health care utilization among U.S. Global War on Terrorism (GWOT) veterans—Operation Enduring Freedom, Operation Iraqi Freedom*. Washington, DC: Author.
- Tanielian, T., Jaycox, L. H., Schell, T. L., Marshall, G. N., Burnam, M. A., Eibner, C., et al. (2008). [Monograph MG-720/1-CCF]. *Invisible wounds of war: Summary and recommendations for addressing psychological and cognitive injuries*. Santa Monica, CA: RAND Corporation.

- ⁴ National Center for PTSD. (2010a). *Returning from the war zone: A guide for families of military members*. Washington, DC: U.S. Department of Veterans Affairs. Retrieved April 26, 2012, from <http://www.ptsd.va.gov/public/reintegration/guide-pdf/FamilyGuide.pdf>
- ⁵ National Center for PTSD. (2010b). *Returning from the war zone: A guide for military personnel*. Washington, DC: U.S. Department of Veterans Affairs. Retrieved April 26, 2012, from <http://www.ptsd.va.gov/public/reintegration/guide-pdf/SMGuide.pdf>
- ⁶ U.S. Department of Veterans Affairs. (2010). *Returning from the war zone: A guide for military personnel*. Washington, DC: Author. Retrieved April 9, 2012, from <http://www.ptsd.va.gov/public/reintegration/guide-pdf/SMGuide.pdf>
- ⁷ Seal, K. H., Cohen, G., Waldrop A., Cohen, B. E., Maguen, S., & Ren, L. (2011). Substance use disorders in Iraq and Afghanistan veterans in VA healthcare 2001–2010: Implications for screening, diagnosis and treatment. *Drug and Alcohol Dependence, 116*(1-3), 93–101.
- ⁸ Brancu, M., Straits-Tröster, K., & Kudler, H. (2011). Behavioral health conditions among military personnel and veterans: Prevalence and best practices for treatment. *North Carolina Medical Journal, 72*(1), 54–60.
- ⁹ National Institute on Alcohol Abuse and Alcoholism. (2005). *A pocket guide for alcohol screening and brief intervention, 2005 edition*. Rockville, MD: Author.
- ¹⁰ Seal, K. H., Shi, Y., Cohen, G., Cohen, B. E., Maguen, S., Krebs, E. F., & Neylan, T. C. (2012). Association of mental health disorders with prescription opioids and high-risk opioid use in US veterans of Iraq and Afghanistan. *Journal of the American Medical Association, 307*(9), 940–947.
- ¹¹ Calhoun, P. S., Elter, J. R., Jones, E. R., Kudler, H., & Straits-Tröster, K. (2008). Hazardous alcohol use and receipt of risk-reduction counseling among U.S. veterans of the wars in Iraq and Afghanistan. *Journal of Clinical Psychiatry, 69*(11), 1686–1693.
- ¹² Milliken, C. S., Auchterlonie, J. L., & Hoge, C. W. (2007). Longitudinal assessment of mental health problems among active and reserve component soldiers returning from the Iraq war. *Journal of the American Medical Association, 298*(18), 2141–2148.
- ¹³ Seal, K. H., Metzler, T. J., Gima, K. S., Bertenthal, D., Maguen, S., & Marmar, C. R. (2009). Trends and risk factors for mental health diagnoses among Iraq and Afghanistan veterans using Department of Veterans Affairs Health Care, 2002–2008. *American Journal of Public Health, 99*(9), 1651–1658.
- ¹⁴ Thomas, J. L., Wilk, J. E., Riviere, L. A., McGurk, D., Castro, C. A., & Hoge, C. W. (2010). Prevalence of mental health problems and functional impairment among active component and National Guard soldiers 3 and 12 months following combat in Iraq. *Archives of General Psychiatry, 67*(6), 614–623.
- ¹⁵ Killgore, W. D., Cotting, D. I., Thomas, J. L., Cox, A. L., McGurk, D., Vo, A. H., et al. (2008). Post-combat invincibility: Violent combat experiences are associated with increased risk-taking propensity following deployment. *Journal of Psychiatric Research, 42*(13), 1112–1121.
- ¹⁶ National Institute on Alcohol Abuse and Alcoholism. (2007). *What colleges need to know now: An update on college drinking research*. Rockville, MD: Author.
- ¹⁷ Cohen, B. E., Gima, K., Bertenthal, D., Kim, S., Marmar, C. R., & Seal, K. H. (2010). Mental health diagnoses and utilization of VA non-mental health medical services among returning Iraq and Afghanistan veterans. *Journal of General Internal Medicine, 25*(1), 18–24.
- ¹⁸ Bagalman, Erin. (2011). Congressional Research Service: *Suicide, PTSD, and substance use among OEF/OIF veterans using VA health care: Facts and figures (July 18, 2011)*. Report prepared for members and committees of Congress.
- ¹⁹ Grieger, T. A., Cozza, S. J., Ursano, R. J., Hoge, C., Martinez, P. E., Engel, C. C., et al. (2006). Posttraumatic stress disorder and depression in battle-injured soldiers. *American Journal of Psychiatry, 163*(10), 1777–1783.
- ²⁰ MacGregor, A. J., Shaffer, R. A., Dougherty, A. L., Galarnau, M. R., Raman, R., Baker, D. G., et al. (2009). Psychological correlates of battle and nonbattle injury among Operation Iraqi Freedom veterans. *Military Medicine, 174*(3), 224–231.
- ²¹ Ramchand, R., Schell, T. L., Karney, B. R., Osilla, K. C., Burns, R. M., & Caldarone, L. B. (2010). Disparate prevalence estimates of PTSD among service members who served in Iraq and Afghanistan: Possible explanations. *Journal of Traumatic Stress, 23*(1), 59–68.
- ²² Sundin, J., Fear, N. T., Iversen, A., Rona, R. J., & Wessely, S. (2010). PTSD after deployment to Iraq: Conflicting rates, conflicting claims. *Psychological Medicine, 40*(3), 367–382.
- ²³ Substance Abuse and Mental Health Services Administration, Office of Applied Studies. (November 6, 2008). *The NSDUH Report: Major depressive episode and treatment for depression among veterans aged 21 to 39*. Rockville, MD: Author.
- ²⁴ Hoge, C. W., Castro, C. A., Messer, S. C., McGurk, D., Cotting, D. I., & Koffman, R. L. (2004). Combat duty in Iraq and Afghanistan, mental health problems, and barriers to care. *New England Journal of Medicine, 351*(1), 13–22.
- ²⁵ American Psychiatric Association. (2000). *Diagnostic and statistical manual of mental disorders* (4th ed., text rev.). Washington, DC: Author.
- ²⁶ Street, A. E., Vogt, D., & Dutra, L. (2009). A new generation of women veterans: Stressors faced by women deployed to Iraq and Afghanistan. *Clinical Psychology Review, 29*, 685–694.

- ²⁷ Miles, D. (2010). *VA strives to prevent veteran suicides*. Washington, DC: U.S. Department of Defense. Retrieved April 26, 2012, from <http://www.defense.gov/news/newsarticle.aspx?id=58879>
- ²⁸ *VA Testimony of The Honorable James B. Peake, M.D., before Congress—Congressional and Legislative Affairs*. 110 Cong. (May 6, 2008).
- ²⁹ Sundararaman, R., Panangala, S. V., & Lister, S. A. (2008). *CRS report for Congress: Suicide prevention among veterans*. Retrieved April 26, 2012, from <http://www.fas.org/sgp/crs/misc/RL34471.pdf>
- ³⁰ Kang, H. K., & Bullman, T. A. (2009). Is there an epidemic of suicides among current and former U.S. military personnel? *Annals of Epidemiology*, *19*(10), 757–760.
- ³¹ Jakupcak, M., Cook, J., Imel, Z., Fontana, A., Rosenheck, R., & McFall, M. (2009). Posttraumatic stress disorder as a risk factor for suicidal ideation in Iraq and Afghanistan war veterans. *Journal of Traumatic Stress*, *22*(4), 303–306.
- ³² Jakupcak, M., Vannoy, S., Imel, Z., Cook, J. W., Fontana, A., Rosenheck, R., et al. (2010). Does PTSD moderate the relationship between social support and suicide risk in Iraq and Afghanistan war veterans seeking mental health treatment? *Depression and Anxiety*, *27*, 1001–1005.
- ³³ Corson, K., Gerrity, M. S., & Dobscha, S. K. (2004). Screening for depression and suicidality in a VA primary care setting: 2 items are better than 1 item. *American Journal of Managed Care*, *10*(11, part 2), 839–845.
- ³⁴ Kimerling, R., Ouimette, P., Prins, A., Nisco, P., Lawler, C., Cronkite, R., et al. (2006). Brief report: Utility of a short screening scale for DSM-IV PTSD in primary care. *Journal of General Internal Medicine*, *21*(1), 65–67.
- ³⁵ Sharpless, B. A., & Barber, J. P. (2011). A clinician's guide to PTSD treatments for returning veterans. *Professional Psychology: Research and Practice*, *42*(1), 8–15.
- ³⁶ Substance Abuse and Mental Health Services Administration. (2006). *Recovery month toolkit 2006, military and veterans*. Rockville, MD: Author.

In Brief

This *In Brief* was written and produced under contract number 270-09-0307 by the Knowledge Application Program (KAP), a Joint Venture of JBS International, Inc., and The CDM Group, Inc., for the Center for Substance Abuse Treatment (CSAT), Substance Abuse and Mental Health Services Administration (SAMHSA), U.S. Department of Health and Human Services (HHS). Christina Currier served as the Contracting Officer's Representative.

Disclaimer: The views, opinions, and content of this publication are those of the authors and do not necessarily reflect the views, opinions, or policies of SAMHSA or HHS.

Public Domain Notice: All materials appearing in this document except those taken from copyrighted sources are in the public domain and may be reproduced or copied without permission from SAMHSA or the authors. Citation of the source is appreciated. However, this publication may not be reproduced or distributed for a fee without the specific, written authorization of the Office of Communications, SAMHSA, HHS.

Electronic Access and Copies of Publication: This publication may be ordered from SAMHSA's Publications Ordering Web page at <http://www.store.samhsa.gov>. Or, please call SAMHSA at 1-877-SAMHSA-7 (1-877-726-4727) (English and Español). The document can be downloaded from the KAP Web site at <http://www.kap.samhsa.gov>.

Recommended Citation: Substance Abuse and Mental Health Services Administration. (2012). Behavioral Health Issues Among Afghanistan and Iraq U.S. War Veterans. *In Brief*, Volume 7, Issue 1.

Originating Office: Quality Improvement and Workforce Development Branch, Division of Services Improvement, Center for Substance Abuse Treatment, Substance Abuse and Mental Health Services Administration, 1 Choke Cherry Road, Rockville, MD 20857.

